

## Data and Modeling for SB 375

### Regional Targets Advisory Committee

March 4, 2009

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## Why Modeling Assessment?

Regional  
Targets



Regional  
Planning to Meet  
Targets (RTPs)



RTP Modeling

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## Different Modeling Capabilities

- Recognized in CTC RTP Guidelines
  - 5 categories of regions
  - 5 recommendations regarding capabilities of transportation and land use modeling
- Raised in RTAC Workgroup Meeting
  - Recognize and understand different modeling capabilities
  - How should RTAC balance this relative to recommendations for target-setting?

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## Modeling Assessment Survey

- Travel Demand Model
- Land Use Model
- Data Collection and Monitoring Programs

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## MPO Modeling Assessment

Factors  
Influencing  
Travel Demand

- Land Use strategies
- Transportation infrastructure
- Exogenous factors



How Well  
Model  
Captures  
(Sensitivity)

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## Survey: Factors Influencing Travel Demand

### Travel Demand Model

#### Policy Factors:

Land uses  
Road projects  
Transit projects  
Pricing

#### Exogenous Factors:

Gas prices  
Auto operating costs  
Age, income  
Vehicle fleet  
External travel

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## Survey: Factors Influencing Travel Demand (cont.)

### Land Use Model

#### Policy Factors:

Land use policy:

Current zoning

Planned changes

Other changes

#### Exogenous Factors:

Residential location

(e.g. affordability

Development-related

(e.g., land cost, etc.)

Regional production

Other factors

### Data Collection/ Monitoring

Land use, demographics, transportation use,  
transportation supply

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## Assessment: Summary

- Dispels any impression that MPOs have comparable modeling capabilities.
- Points out where improvements can be, and are being, made.

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## Travel Demand and Land Use Models: Policy Factors

- Larger MPO's:
  - Reasonable sensitivity to key factors
  - Plans for model improvements
- Smaller MPO's:
  - Simpler models, without sensitivity to many key factors.
  - Very few capable of modeling transit. Many factors not applicable.
- No or untested capacity, or insensitivity to factor:
  - Micro-level land use factors (including many of the "Ds")
  - ITS and traffic management
  - Intercity transit
  - Pricing policies

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## Travel Demand and Land Use Models: Exogenous Factors

- Larger MPOs:
  - Policy variables similar to travel model assessment
  - Models capture more exogenous factors
- Smaller MPOs:
  - Policy variables similar to travel model assessment
  - Models capture less exogenous factors
- No or untested capacity, or insensitivity to factor
  - external travel (originating out of region)
  - key economic factors
  - Vehicle fleet characteristics mostly done post hoc

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## Data Collection / Monitoring

- Most common assessment:  
“Inconsistent” (e.g., data are collected but not on a regular schedule or in a consistent way)

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## Some Possible Questions for Discussion

- How should the RTAC deal with differing modeling capabilities relative to recommendations for target-setting?
- Do all models need to have similar capabilities?
  - If yes, by when?
- What other methods might be used (in conjunction with models or separately) to help more accurately assess impacts of land use and transportation actions?
- Is there a need for common definitions and values (e.g., for exogenous factors like fuel price, income, estimates of external travel)?

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## Other Efforts

- Modeling improvement efforts
  - Assistance from State
  - Making the case for assistance
- Scenario development